

# QUARANTINE PESTS

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# USDA, APHIS, PPQ

(United States  
Department of  
Agriculture, Animal &  
Plant Health  
Inspection Service,  
Plant Protection &  
Quarantine)



# What is an “invasive species?”



# What is an “invasive species?”



- Non-native (or alien) to the ecosystem &
- Whose introduction causes economic or environmental harm or harm to human health.

Why do we CARE about  
ALIENS?



They harm the economy,  
the environment or human  
health.



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- Purple loosestrife can produce up to 2.7 million seeds per plant annually and spreads across approximately 1 million additional wetland acres each year.



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- The glassy-winged sharpshooter in California carries a bacterium that has caused nearly \$40 million in losses of CA grapes. The potential losses to grape, wine, raisin and tourism industries are valued at nearly \$35 billion/year.

# IMPACTS of Invasive Species:

- Foot and Mouth Disease, a highly contagious disease of cloven-hoofed animals, has caused the US to temporarily ban meat imports from Europe and Chile. The epidemic has already cost British companies \$30 billion, according to the Institute of Directors.

# Some APHIS “quarantine” pests:

?????



# Some APHIS “quarantine” pests:

## GYPSY MOTH

European and Asian strains



# Some APHIS “quarantine” pests:

???



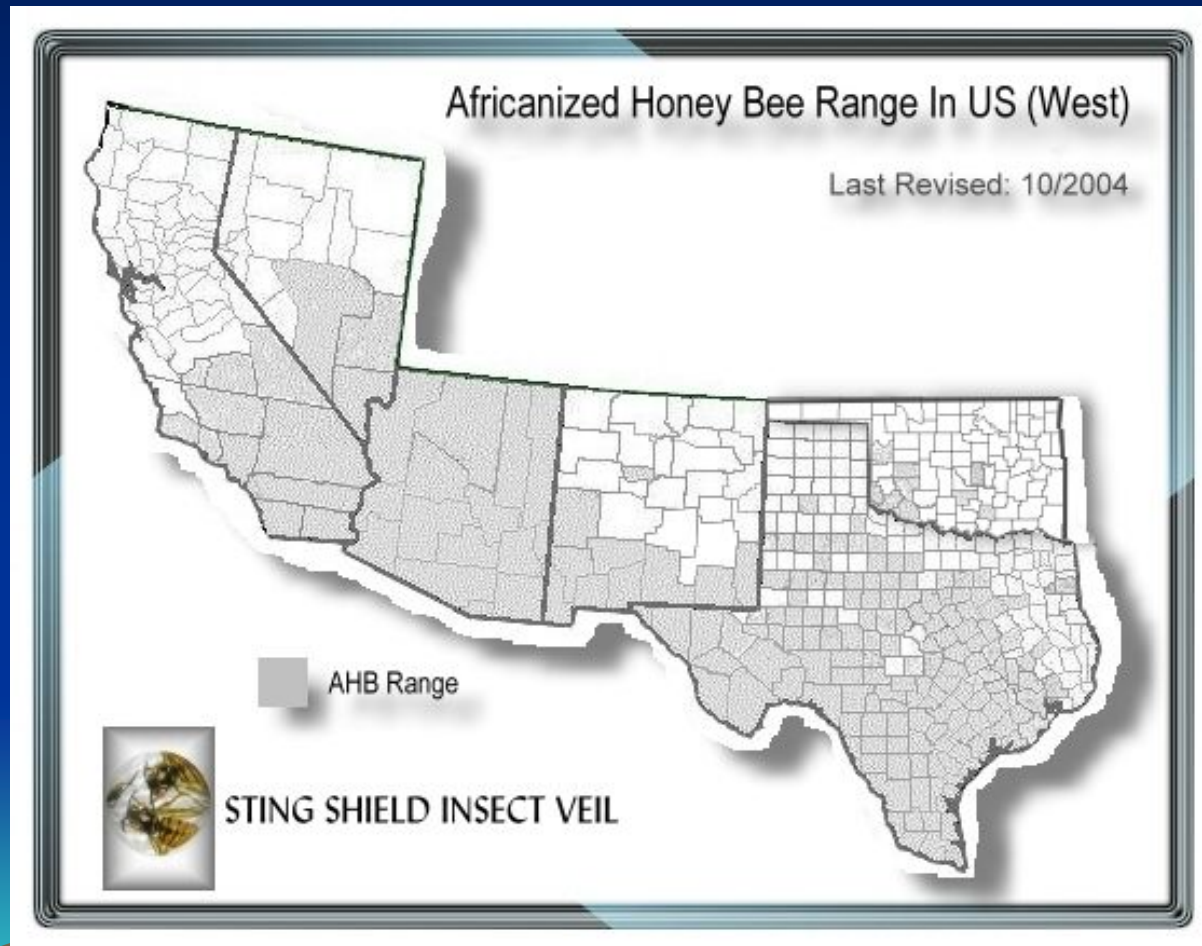
# Some APHIS “quarantine” pests:

## AFRICANIZED HONEY BEE





# “Killer Bee” Distribution



# Some APHIS “quarantine” pests:

???



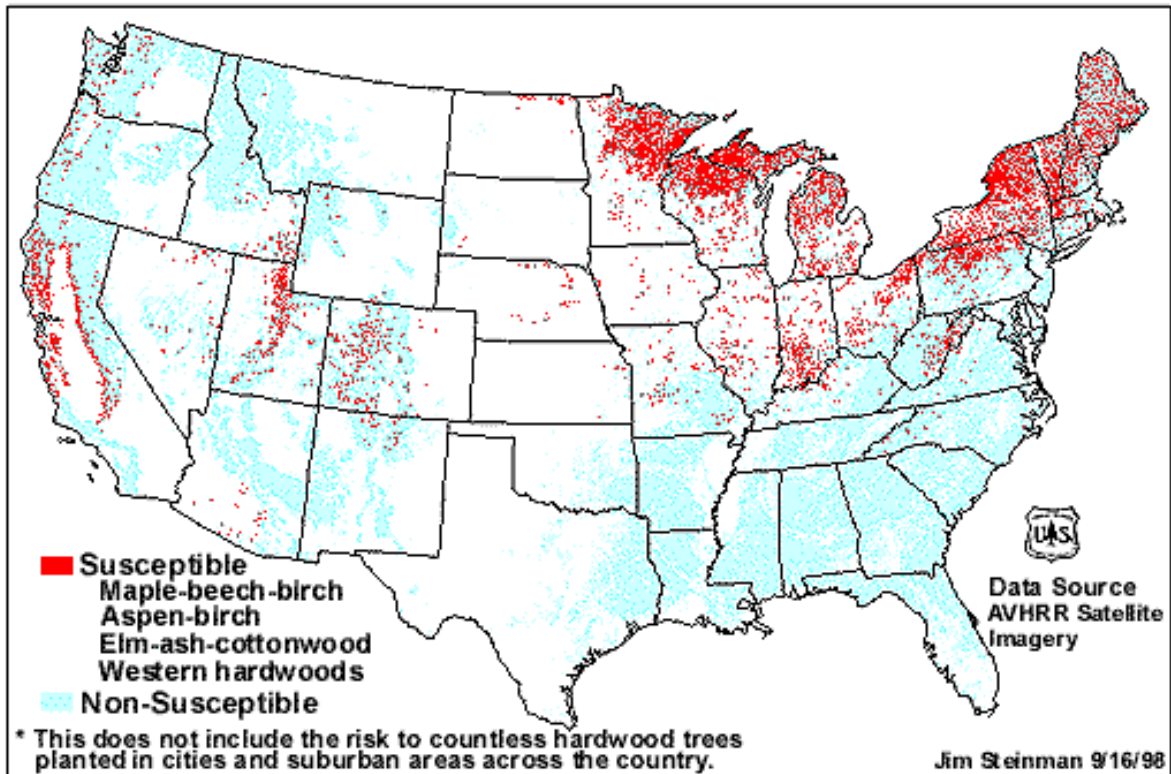
# Some APHIS “quarantine” pests:

## ASIAN LONG-HORNED BEETLE



# Potential Asian Long-horned Beetle Distribution

Forest Types Potentially at Risk to Asian Long-horned Beetle\*



# Some APHIS “quarantine” pests:

???

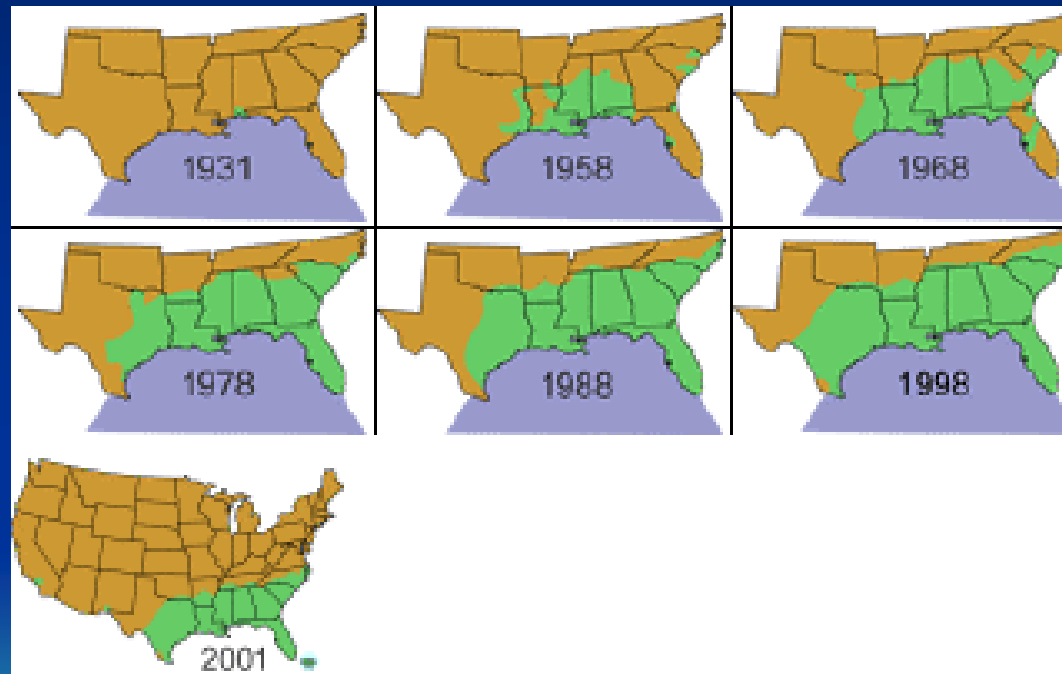


# Some APHIS “quarantine” pests:

## IMPORTED FIRE ANT



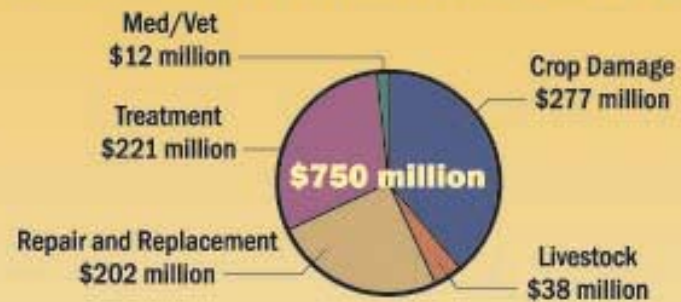
# IFA Spread Since 1931



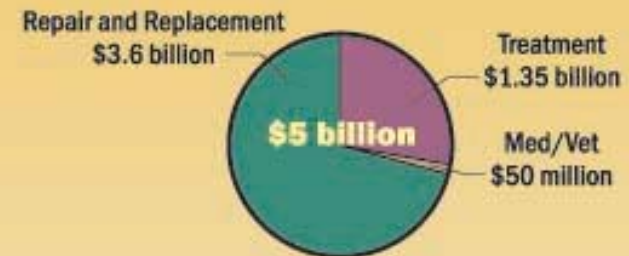


# IFA Economic Losses

## Total Annual Fire Ant Losses to Agriculture



## Total Annual Fire Ant Losses to Households, Business, Schools, Government, and Institutions



# Some APHIS “quarantine” pests:

???



Some APHIS “quarantine” pests:

## Japanese Beetle



# Some APHIS “quarantine” pests:

???



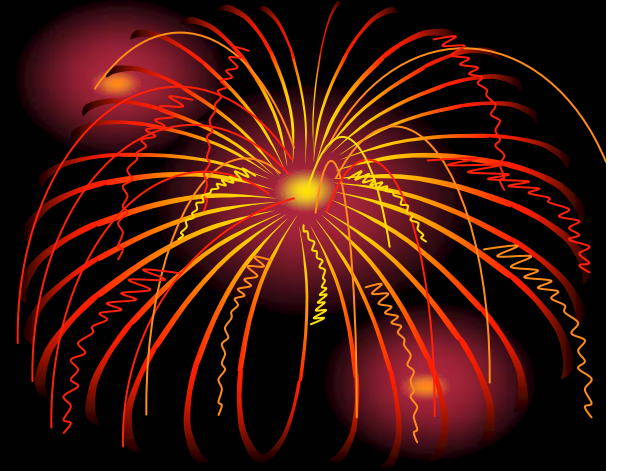


Some APHIS “quarantine” pests:

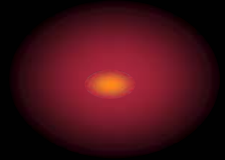
“SOD” – *Phytophthora ramorum*



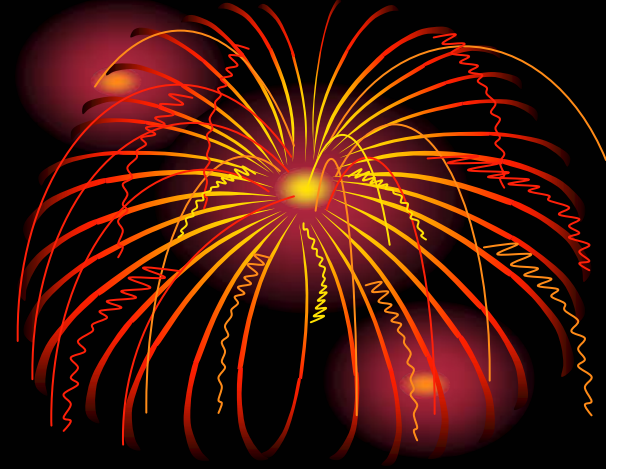
# ALIENS!



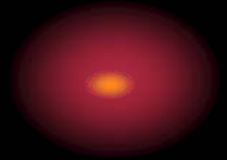
- HOW do we KNOW if we have them?
- HOW do we KEEP OUT others?
- WHAT do we DO with them?



# ALIENS!



- SURVEY
- REGULATE  
COMMODITIES  
(industry/coun-  
tries)
- CONTROL





# BIOLOGICAL CONTROL of Aliens



# BIOLOGICAL CONTROL of Knapweed



# BIOLOGICAL CONTROL of Saltcedar





# Delta SCLB Cages 2003





# Delta SCLB Cages 2005





What do you know?



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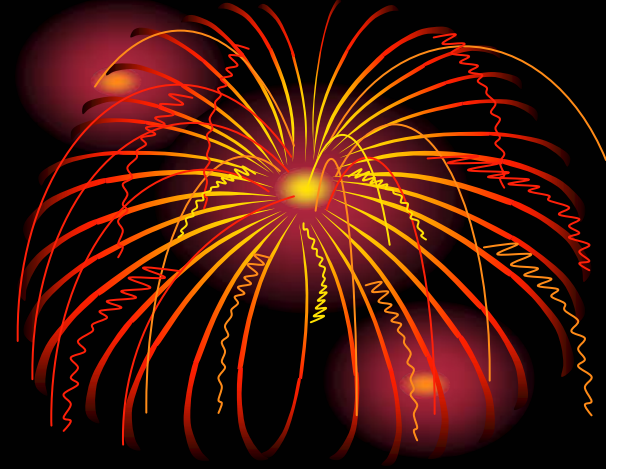


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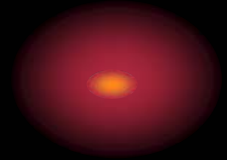


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# ALIENS!



- SURVEY
- REGULATE commodities
- CONTROL



Can you name some?

